IN THE CLAIMS

1 (Currently Amended) A digital image encoding device comprising:

conversion means for converting digital image data into a coefficient based on a spatial frequency;

quantization means for quantizing the coefficient obtained by said conversion means; and

coefficient bit modeling means for carrying out coefficient bit modeling by using said coefficient quantized by said quantization means,

wherein said digital image data is divided into a plurality of subbands in said conversion means,

wherein said coefficient bit modeling means ~~comprises;~~ comprises:

code block division means for dividing each of said subbands into a plurality of code blocks;

bit plane decomposition means for decomposing each of coefficients of said code blocks obtained by said code block division means into a plurality of bit planes for each bit weight;

subbit plane decomposition means for decomposing each of said bit planes obtained by said bit plane decomposition means into a plurality of subbit planes based on usefulness; and

predetermined data generation means for generating predetermined data in accordance with said subbit planes obtained by said subbit plane decomposition means,

and ~~said coefficient bit modeling means comprises~~

requantization means for requantizing a predetermined subbit plane among said subbit planes obtained by said subbit plane decomposition means and passing data after said requantization to said predetermined data generation means.

2. (Currently Amended) The digital image encoding device according to claim 1, wherein said requantization means carries out said requantization, provided that the following three conditions are satisfied;

a first condition where a currently processed subband is not a band of a lowest frequency compared with ~~osaidr~~ other subbands,

a second condition where a currently processed bit plane has weight lighter than predetermined weight, and

a third condition where said number of "1" in a currently processed subbit plane is equal to or lower than a predetermined value.

3. (Original) The digital image encoding device according to claim 2, wherein said requantization means resets all currently processed subbit planes to "0", when said three conditions are satisfied.

4. (Original) The digital image encoding device according to claim 2, wherein said requantization means resets all currently processed subbit planes and subbit planes lower in order than said subbit planes to "0", when said three conditions are satisfied.

5. (Original) The digital image encoding device according to claim 2, wherein said requantization means cancels processing of a currently processed code block and carries out processing of a next code block, when said three conditions are satisfied.

6. (Currently Amended) The digital image encoding device according to claim 2, wherein said predetermined weight of said second condition and said predetermined value of said number of "1" of said third condition can be selected for every ~~subbands~~ subband and in accordance with a decomposition level of said conversion means.

7. (Currently Amended) A digital image encoding means comprises:

conversion step of converting digital image of data into a coefficient based on a spatial frequency;

quantization step of quantizing said coefficient obtained by said conversion step; and

coefficient bit modeling step of carrying out coefficient bit modeling by using said coefficient quantized by said quantization step,

wherein said digital image data is divided into a plurality of subbands in said conversion step,

wherein said coefficient bit modeling step ~~comprises;~~ comprises:

code block division step of dividing each of said subbands into a plurality of code blocks;

bit plane decomposition step of decomposing each of coefficients of said code blocks obtained by said code block division means into a plurality of bit planes for each bit weight;

subbit plane decomposition step of decomposing each of said bit planes obtained by said bit plane decomposition step into a plurality of subbit planes based on usefulness; and

predetermined data generation step of generating predetermined data in accordance with said subbit planes obtained by said subbit plane decomposition step,

and ~~said coefficient bit modeling step comprises~~

requantization step of requantizing a predetermined subbit plane among said subbit planes obtained by said subbit plane decomposition step and passing data after said requantization to said predetermined data generating step.

8. (Currently Amended) The digital image encoding method according to claim 7, wherein said requantization step carries out said requantization, provided that the following three conditions are satisfied;

a first condition where a currently processed subband is not a band of a lowest frequency compared with ~~osaidr~~ other subbands,

a second condition where a currently processed bit plane has weight lighter than predetermined weight, and

a third condition where said number of "1" in a currently processed subbit plane is equal to or lower than a predetermined value.

9. (Original) The digital image encoding method according to claim 8, wherein said requantization step resets all currently processed subbit planes to "0", when said three conditions are satisfied.

10. (Original) The digital image encoding method according to claim 8, wherein said requantization step resets all currently processed subbit planes and subbit planes lower in order than said subbit planes to "0", when said three conditions are satisfied.

11. (Original) The digital image encoding method according to claim 8, wherein said requantization step cancels processing of a currently processed code block and carries out processing of a next code block, when said three conditions are satisfied.

12. (Currently Amended) The digital image encoding method according to claim 8, wherein said predetermined weight of said second condition and said predetermined value of said number of "1" of said third condition can be selected for every ~~subbands~~ subband and in accordance with a decomposition level of said conversion step.

13. (Currently Amended) A program for causing a computer to perform a digital image encoding method, said method comprising:

conversion step of converting digital image data into a coefficient based on a spatial frequency;

quantization step of quantizing said coefficient obtained by said conversion step; and

coefficient bit modeling step of carrying out coefficient bit modeling by using said coefficient quantized by said quantization step,

wherein said digital image data is divided into a plurality of subbands in said conversion step,

wherein said coefficient bit modeling step ~~comprises;~~ comprises:

code block division step of dividing each of said subbands into a plurality of code blocks;

bit plane decomposition step of decomposing each of coefficients of said code blocks obtained by said code block division means into a plurality of bit planes for each bit weight;

subbit plane decomposition step of decomposing each of said bit planes obtained by said bit plane decomposition step into a plurality of subbit planes based on usefulness; and

predetermined data generation step of generating predetermined data in accordance with said subbit planes obtained by said subbit plane decomposition step,

and ~~said coefficient bit modeling step includes~~

requantization step of requantizing a predetermined subbit plane among said subbit planes obtained by said subbit plane decomposition step and passing data after said requantization to said predetermined data generation step.

14. (Currently Amended) The program according to claim 13, wherein said requantization step carries out said requantization, provided that the following three conditions are satisfied;

a first condition where a currently processed subband is not a band of a lowest frequency compared with ~~osaidr~~ other subbands,

a second condition where a currently processed bit plane has weight lighter than predetermined weight, and

a third condition where said number of "1" in a currently processed subbit plane is equal to or lower than a predetermined value.

15. (Original) The program according to claim 14, wherein said requantization step resets all currently processed subbit planes to "0", when said three conditions are satisfied.

16. (Original) The program according to claim 14, wherein said requantization step resets all currently processed subbit planes and subbit planes lower in order than said subbit planes to "0", when said three conditions are satisfied.

17. (Original) The program according to claim 14, wherein said requantization step cancels processing of a currently processed code block and carries out processing of a next code block, when said three conditions are satisfied.

18. (Currently Amended) The program according to claim 14, wherein said predetermined weight of said second condition and said predetermined value of said number of "1" of said third condition can be selected for every ~~subbands~~ subband and in accordance with a decomposition level of said conversion step.